

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (currently amended)

A two-stroke engine, comprising:

2 a retro-tube ~~connected~~ communicating with an exhaust exit port,

4 a plenum chamber communicating with the retro-tube,

6 a secondary air tube communicating with the plenum
chamber, and

8 an exhaust receiver tube communicating with the retro-tube,
the combined flow produced by exhaust inertia and kinetic energy
urging the exhaust to the end of the retro-tube,

10 upon the piston reaching the bottom of its stroke, the
exhaust and fresh air exit the retro-tube, then reverse direction
12 of flow ~~[[to]]~~ through the tube, whereupon they are slowed and
their direction of flow is reversed and they pass in reverse
14 through the exhaust outlet and into the cylinder and increase
the air density in the cylinder.

2. (original)

An engine according to Claim 1, wherein inertial inflow of fresh air and exhaust increases the pressure and density of air in the cylinder to provide a kinetic supercharging effect.

3. (original)

An engine according to Claim 1, wherein air is drawn into the cylinder with the piston stroke continuing to about 90° of rotation, and vacuum in the retro-tube drawing in clean air into the retro-tube.

4. (original)

An engine according to Claim 1, wherein the exhaust system cools the retro-tube and also cools the combustion chamber and the piston edge adjacent to the exhaust opening.

5. (original)

An engine according to Claim 1, wherein optimum volume of the retro-tube equals the total displacement volume of a piston stroke.

8. (new)

A two-stroke engine, comprising:

2 a retro-tube communicating with an exhaust exit port,

a plenum chamber communicating with the retro-tube,

4 a secondary air tube communicating with the plenum
chamber,

6 exhaust from the plenum chamber being directed into the
retro-tube while air enters back into the plenum chamber, and

8 an exhaust receiver tube communicating with the retro-tube,
the combined flow produced by exhaust inertia and kinetic energy
10 urging the exhaust to the end of the retro-tube,

upon the piston reaching the bottom of its stroke, the
12 exhaust and fresh air exit the retro-tube, then reverse direction
of flow through the tube, whereupon they are slowed and their
14 direction of flow is reversed and they pass in reverse through
the exhaust outlet and into the cylinder and increase the air
16 density in the cylinder.

7. (new)

An engine according to Claim 6, wherein inertial inflow
2 of fresh air and exhaust increases the pressure and density of
air in the cylinder to provide a kinetic supercharging effect.

8. (new)

An engine according to Claim 6, wherein air is drawn
2 into the cylinder with the piston stroke continuing to about
90° of rotation, and vacuum in the retro-tube drawing in clean
4 air into the retro-tube.

9. (new)

An engine according to Claim 6, wherein the exhaust
2 system cools the retro-tube and also cools the combustion
chamber and the piston edge adjacent to the exhaust opening.

10. (new)

An engine according to Claim 6, wherein optimum volume
2 of the retro-tube equals the total displacement volume of a
piston stroke.